

**REMARKS**

Claims 1 and 3-13 are pending in this application. By this Amendment, claims 1, 3, 4, 7, 10 and 11 are amended. Support for the amendments can be found, for example, in the specification (see page 3, lines 17-26; page 3, line 32 to page 4, line 3; page 4, lines 19-26; page 7, lines 2-8; and Figs. 1-9). No new matter is added.

Reconsideration and allowance of the claims are respectfully requested in view of the foregoing amendments and the following remarks.

**I. Rejection Under 35 U.S.C. §112**

The Office Action rejects claim 1 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The amendment to claim 1 obviates the rejection. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**II. Rejections Under 35 U.S.C. §103**

**A. Courbon and Bolduc**

The Office Action rejects claims 1, 3 and 10-13 under 35 U.S.C. §103(a) over U.S. Patent No. 3,765,155 to Courbon ("Courbon") in view of U.S. Patent Application Publication No. 2003/0205137 to Bolduc ("Bolduc"). This rejection is respectfully traversed.

The Office Action asserts that Courbon discloses various features recited in claim 1. However, the Office Action concedes that Courbon does not disclose a chemical volatilization device comprising "a mesh constituent unit or that the chemical retainer comprises a plurality of chemical retaining fibers in the form of a regular mesh with individual mesh units in two dimensional directions on both an upper and a lower side of the chemical retainer, and a plurality of supportive chemical retaining [straight] fibers arranged between the chemical retaining fibers, which are located on the upper and lower sides of the chemical retainer and connect the chemical retaining fibers on both the upper and lower sides

[regularly] in the mesh constituent unit as a result of having bending elasticity" (Office Action, pages 3-4). The Office Action applies Bolduc to allegedly remedy these deficiencies of Courbon. However, for at least the reasons presented below, Bolduc does not remedy the deficiencies of Courbon and, thus, Courbon and Bolduc would not have rendered claim 1 obvious.

Bolduc discloses a microbicidal air filter that traps and kills pathogenic microbes by a network of fibers (Bolduc, paragraph [0015]). With reference to Bolduc's Figure 1, Bolduc's air filter comprises a first screen **14** and a second screen **16**, both of which merely act to support an immobilization network **12** and define a work area (Bolduc, paragraph [0042]). The immobilization network **12** comprises a mesh of fibers **20** (Bolduc, paragraph [0043]). Bolduc further discloses that the screen elements **14** and **16** may be different shapes and sizes (Bolduc, paragraph [0054] and Figs. 1, 3 and 4). However, regardless of the size or shape of the screens, one of ordinary skill in the art would recognize that the immobilization network **12** does not require screens and, thus, may be used independent of any screens, as expressly disclosed by Bolduc (Bolduc, paragraph [0042]). As a result, Bolduc does not disclose, nor would Bolduc have rendered obvious, a chemical volatilization device comprising, *inter alia*, a chemical retainer comprising a plurality of chemical-retaining fibers in the form of a regular mesh in two-dimensional directions on both an upper and a lower side of the chemical retainer; and a plurality of supportive chemical-retaining straight fibers arranged between the chemical-retaining fibers, which are located on the upper and lower sides of the chemical retainer, and connect the chemical-retaining fibers on both the upper and lower sides regularly, as recited in claim 1.

More specifically, contrary to the assertion made by the Office Action, the first and second screens **14** and **16** of Bolduc do not constitute a plurality of chemical-retaining fibers that are connected by supportive chemical retaining straight fibers, as recited in claim 1.

Instead, the air filter of Bolduc comprises a mesh of fibers **20** (that the Office Action asserts corresponds to the supportive chemical retaining fibers recited in the claims) located *between* a set of optional screens **14** and **16**, which merely serve to define a work area (Bolduc, paragraph [0042]). Therefore, unlike the chemical volatilization device recited in the claims, Bolduc's mesh of fibers **20** does not connect the chemical-retaining fibers on the upper and lower sides regularly, as recited in claim 1. Rather, an upper and a lower screen optionally support Bolduc's mesh of fibers **20**, which define its work area. Further supported by Figure 1 of Bolduc, no mesh fibers **20** are present on either the upper side of screen **14**, or the lower side of screen **16** (The Office Action asserts that **14** and **16** correspond to the plurality of chemical retaining fibers recited in the claims). Furthermore, the mesh fibers **20** of Bolduc are not straight mesh fibers, as recited in claim 1, but instead are arranged as a fine layer of "so-called angels hair, of flaky mesh, or the like" (Bolduc, paragraph [0043]).

In addition, the fastening means **46** of Bolduc also cannot correspond to the supportive chemical retaining fibers recited in the claims. Bolduc's fastening means **46** merely penetrate the network **12** and divide the network **12** into subdivisions **44** (see Bolduc, paragraph [0056] and Fig. 9). Therefore, the fasteners **46** cannot support Bolduc's optional screens **14** and **16**. Accordingly, the fastening means **46** of Bolduc also would not have rendered obvious the supportive chemical retaining fibers, as recited in claim 1.

Also, the Office Action asserts that Bolduc's mesh of fibers **20** discloses the small gap chemical-retaining fibers recited in claim 10. Applicants disagree.

The small gap chemical retaining fibers recited in claim 10 are in the form of a regular mesh in two-dimensional directions. However, Bolduc's mesh of fibers **20** have no regular form and are not connected to the chemical retaining fibers (that the Office Action asserts corresponds to Bolduc's optional screens **14** and **16**). Thus, Bolduc's mesh of fibers **20** does not disclose, and would not have rendered obvious, each and every feature of claim 10.

In view of the numerous and significant dissimilarities between Bolduc and the device of claim 1, one of ordinary skill in the art would have had no reason or rationale to have combined and modified Bolduc with Courbon to have obtained the claimed device with any reasonable expectation of success without the benefit of Applicants' specification. As described in detail above, Bolduc does not cure the deficiencies of Courbon with respect to claim 1. In particular, the applied references would not have rendered obvious a chemical volatilization device comprising, *inter alia*, 1) a plurality of chemical-retaining fibers in the form of a regular mesh in two-dimensional directions on both an upper and a lower side of the chemical retainer; 2) and a plurality of supportive chemical-retaining straight fibers arranged between the chemical-retaining fibers, which are located on the upper and lower sides of the chemical retainer; and 3) where the supportive chemical-retaining straight fibers connect the chemical-retaining fibers on both the upper and lower sides regularly, as recited in claim 1.

Based on the above, Courbon and Bolduc would not have rendered claim 1 obvious. The remaining claims variously depend from claim 1 and, likewise would not have been rendered obvious by the applied references, for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**B. Courbon, Bolduc and D'Amico**

The Office Action rejects claims 4-9 under 35 U.S.C. §103(a) over Courbon in view of Bolduc, and further in view of U.S. Patent Application Publication No. 2006/0110297 to D'Amico et al. ("D'Amico"). This rejection is respectfully traversed.

The above discussion with respect to Courbon and Bolduc applies here.

The Office Action applies D'Amico as allegedly addressing additional features recited in dependent claims 4-9. Thus, D'Amico does not cure the deficiencies of Courbon and Bolduc with respect to claim 1.

Based on the above, Courbon, Bolduc and D'Amico would not have rendered claim 1 obvious. Claims 4-9 variously depend from claim 1 and, likewise would not have been rendered obvious by the applied references, for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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